

Autoantibodies to Glucose-6-Phosphate Isomerase And Their Participation In Autoimmune Disease

ABSTRACT

5 It has been discovered that one of the causes of human rheumatoid arthritis is an
autoimmune reaction to human glucose-6-phosphate isomerase. While human glucose-6-
phosphate isomerase is a normal constituent of living tissue, and the underlying reasons
for the autoimmune reaction are not understood, this discovery enables effective
treatment of the disease, especially when the human immune reaction is the primary
10 cause of the rheumatoid arthritis. The human antibody, anti-glucose-6-phosphate
isomerase IgG, can be used to develop immunopolypeptides having binding capacity
with the antigen. Antibodies and antibody fragments to the antiglucose-6-phosphate
isomerase IgG, antisense oligonucleotides, conjugates of human GPI with cytotoxic
agents, immobilized human GPI may be used to ameliorate or eliminate the immune
15 reaction. The peptide, nucleotide products as well as methods of diagnosis and treatment
are provided.